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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,474	12/12/2005	John S. Tootle	222104-1010	3134
24504 7590 03/24/2009 THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 600 GALLERIA PARKWAY, S.E. STE 1500 ATLANTA, GA 30339-5994				
EXAMINER				
COHEN, LEE S				
ART UNIT		PAPER NUMBER		
3739				
MAIL DATE		DELIVERY MODE		
03/24/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/560,474

## Applicant(s)

TOOTLE ET AL.

## Examiner

Lee S. Cohen

## Art Unit

3739

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 11, 25, 26, 31, 32, 37, 38, 46, 47, 55, 56, 61, 62 and 66-70 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11, 25, 26, 31, 32, 37, 38, 46, 47, 55, 56, 61, 62 and 66-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-848)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/10/08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25, 26, 37, 38, 46, 47, 55, 56, 61, 62, and 67-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 25 – the metal wire’s first end and second end lack antecedent basis. Claim 31 is rejected as claim 25. Claim 37 – “a first metal” in lines 4-5 is vague; a second carbon fiber is set forth in line 5 without a first such fiber being recited; the recording electrode and the stimulating electrode are both coupled to the same metal wire; “a first metal wire” in the feedback loop lacks antecedent basis; the feedback loop seems to reiterate elements of the recording and stimulating electrode sections and connect the electrodes therein to the same elements (i.e., preamplifier). Claim 46 is rejected as claim 37 with respect to the reiteration of the recording and stimulating electrodes and the feedback loop; further, a second wire is set forth in line 5 prior to any first such wire being set forth; and the last two paragraphs of the claim are redundant. Claim 55 – it is unclear if the metal wire in line 8 is the same metal wire set forth in line 2 and if each electrode is being coupled to the same metal wire. Claim 56 – “said at least two carbon fibers” lacks antecedent basis. Claim 61 is vague since a metal wire is set forth in line 2 which structural association with any of the other elements. Claim 67 – “each exposed electrode” lacks antecedent basis. Claim 68 – “each exposed electrode” lacks antecedent basis. Claim 69 is rejected as claim 37. Claim 70 is rejected as claim 46 and “feed70ck” in lines 2-3 is vague.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 11, 25, 26, 31, 32, and 66-68 are rejected under 35 U.S.C. 102(c) as being clearly anticipated by Jardemark et al (2004/0182707). Applicant's attention is directed to the various Figures that disclose an array of electrodes. The electrodes can be formed of carbon fibers having a spacing of less than 20 micrometers and which extend from a substrate. The electrodes are connectable to current generators and/or amplifiers. Attention is directed to paragraphs 16, 110, 123, 125, 127, 129, 131, 132, 146, 164, and 171.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 55, 56, 61, and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerhardt et al (5,806,517) in view of Jardemark et al (2004/0182707). The basic device is disclosed by Gerhardt et al as shown in Figure 1C. Plural electrodes can be employed as detailed at column 8, line 18. The reference fails to disclose the particular electrode structure. Such

structure including carbon fiber electrodes is well known as disclosed by Jardemark et al as previously detailed. Given this teaching, it would have been obvious to the skilled artisan to use such structure in Gerhardt et al to effect superior signal detection since a predictable result would ensue.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee S. Cohen whose telephone number is 571-272-4763. The examiner can normally be reached on Monday-Friday, 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda Dvorak can be reached on 571-272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lee S. Cohen  
Primary Examiner  
Art Unit 3739

/Lee S. Cohen/  
Primary Examiner, Art Unit 3739  
March 3, 2009

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Art Unit: 3739

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